

Claims

[c1] What is claimed is:

1.A method of producing a touch panel comprising:
providing a display panel which comprises a pixel region
and a controlling circuit region;
forming a plurality of pixels arranged in an array in the
pixel region for displaying images;
forming a plurality of fluorescent patterns not overlap-
ping the pixels in the pixel region for designating coor-
dinates of the pixel region; and
providing an input device for inputting data, the input
device comprising:
a light emitting element for revealing the fluorescent
patterns; and
a light sensor for detecting the fluorescent patterns.

[c2] 2.The method of claim 1, wherein the light emitting ele-
ment is capable of generating a light with a specific
wavelength for revealing the fluorescent patterns, and
the light sensor is capable of identifying coordinates of
the fluorescent patterns and generating corresponding
signals.

[c3] 3.The method of claim 1, wherein the fluorescent pat-

terns are composed of fluorescent inks comprising anthracene or aromatic compounds.

[c4] 4.The method of claim 1, wherein the fluorescent patterns are formed by halftone printing or ink jet printing.

[c5] 5.The method of claim 1, wherein forming the fluorescent patterns further comprises:
forming a photosensitive film on the display panel;
performing an exposure process by a mask; and
performing a development process to form a plurality of fluorescent patterns not overlapping the pixels;
wherein the photosensitive film is a photosensitive ink, and the photosensitive film is formed by spin coating or blade coating.

[c6] 6.The method of claim 1, wherein the display panel is an LCD panel, and the fluorescent patterns are formed on a top substrate surface of the LCD panel or between the top substrate and a black matrix layer.

[c7] 7.The method of claim 1, wherein the display is a top emission OLED display panel having a glass container, and the fluorescent patterns are positioned on a top surface of the glass container or on a bottom surface of the glass container.

[c8] 8.The method of claim 1, wherein the display panel is a

bottom emission OLED display panel having a bottom substrate and a plurality of thin film transistors, and the fluorescent patterns are positioned on a bottom surface of the bottom substrate or between the bottom substrate and the thin film transistors.

[c9] 9.The method of claim 1, wherein the controlling circuit region further comprises a controlling circuit for driving the pixels, and the touch panel further comprises a processor for receiving the signals from the light sensor and driving the controlling circuit to display tracks of the input device.

[c10] 10.A method of producing a touch panel comprising:
providing a display panel which comprises a pixel region and a controlling circuit region;
forming a plurality of pixels arranged in an array in the pixel region for displaying images;
forming a plurality of magnetic patterns not overlapping the pixels in the pixel region for designating coordinates of the pixel region; and
providing an input device for inputting data, the input device comprising a magnetic sensor for detecting and the magnetic patterns.

[c11] 11.The method of claim 10, wherein the magnetic patterns are formed by halftone printing or ink jet printing.

- [c12] 12.The method of claim 10, wherein the method of forming the magnetic patterns further comprises:
forming a photosensitive film on the display panel;
performing an exposure process by a mask; and
performing a development process to form a plurality of magnetic patterns not overlapping the pixels;
wherein the photosensitive film is a photosensitive magnetic ink, and the photosensitive film is formed by spin coating or blade coating.
- [c13] 13.The method of claim 10, wherein the display panel is an LCD panel, and the magnetic patterns are formed on a top substrate surface of the LCD panel or between the top substrate and a black matrix layer.
- [c14] 14.The method of claim 10, wherein the display is a top emission OLED display panel having a glass container, and the magnetic patterns are positioned on a top surface of the glass container or on a bottom surface of the glass container.
- [c15] 15.The method of claim 10, wherein the display panel is a bottom emission OLED display panel having a bottom substrate and a plurality of thin film transistors, and the magnetic patterns are positioned on a bottom surface of the bottom substrate or between the bottom substrate

and the thin film transistors.

- [c16] 16. The method of claim 10, wherein the controlling circuit region further comprises a controlling circuit for driving the pixels, and the touch panel further comprises a processor for receiving the signals from the sensor and driving the controlling circuit to display tracks of the input device.